

**ABSTRACT**

An LCD TV ~~comprises~~includes a housing, an LCD screen panel disposed on the front side of the housing, a first mirror disposed on the back side of the housing and a projection-based backlight system disposed in a lower cabinet of the housing, wherein the projection-based backlight system provides polarized light for the LCD screen panel through the first mirror. The projection-based backlight system can provide uniformly polarized light and increase polarization efficiency as well as be easily achieved by using low-cost optical components.